

Power Searcher: a mobile search game

—embedding gamification in public library to provide advanced search trainings for youths

To: Shanghai Public Library
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LIBR 501 -Foundations of the Information Society and Information Organizations

Background: 2 problems

Today search engines are used ubiquitously by youths as tools to find information (Bilal & Ellis, 2011). However, not everyone could grow into a power searcher who are adept at employing effective and efficient search strategies (Foss et al, 2013). Part of the reason is that not many youths are receiving targeted trainings to learn how to search.

On the other hand, Shanghai Public Library wants to attract more young users to the library, and the library is always committed to providing technology trainings to the public.

"If we simply continue to use technologies to enhance the current structure and functioning of education, our young people will use the technologies to entertain themselves and engage in online socializing and shopping. We will have missed enormous opportunities to produce independent life-long learners."

-- Hugh F. Cline, adjunct professor at Columbia University (Anderson & Rainie, 2012, p. 20)

Question?

What could Shanghai Public library do to promote searching literacy and fluency among youths and at the same time attract more young users to the library?

What is gamification?

Kapp (2012) defines gamification as "using game-based mechanics, aesthetics and game thinking to engage people, motivate action, promote learning, and solve problems" (p. 10). To make it simple, gamification is the process of making an event more interesting and engaging by making it like a game. To achieve this, some games mechanics are often used, like competition, achievement and socialization.

Gamification in libraries

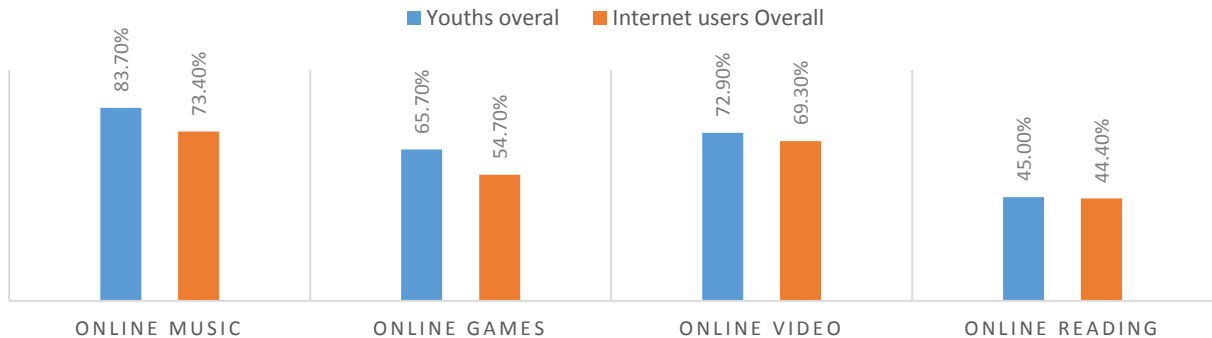
In the library world, gamification is actually not a brand new topic (Spina, 2012). In 2011, New York public library launched a game called *Reality is Broken* to celebrate its centennial. 500 players gathered in its world-famous Stephen A building, and played the game. In this game, players were given "missions" to find specific artifacts, and to scan the QR code via their mobiles to prove that they found them. Their work was also submitted to the game website after all the quests had been completed, and then the online version was open to the general public.

Also in UK, there is *librarygame*, a web application that can both run on a remote server or on the local library management system. Via this library enhancement product, library patrons could record their behaviors every time they interact with the library. They will receive special achievements when they perform some actions, and they could also share their own statuses with other library patrons.

Why gamification?

According to the recent report on youths' internet behavior (CNNIC, 2014), over 65% youths in China have played online games. This suggests a large potential target group for “Power Searcher”.

YOUTHS INTERNET BEHAVIORS



Game is fun. However, besides making a task more interesting, gamification could generate more benefits.

According to Jane McGonigal (2011), the famous game designer, people tend to be more motivated, engaged, and often achieve more in games than in the real world. This is because games are carefully designed in a way that players will only be given challenges corresponding to their capabilities at a certain stage of a game. Thus, success is guaranteed as long as players work hard enough.

When designed and employed carefully, game mechanics could enhance the learning process of youths. Gee (2003) has studied several successful video games and identified techniques used in these games to facilitate players how to survive long, complex, and difficult tasks.

In education, gamification has also been put into practices. Research conducted on the effects of gamification on education showed that students who completed the gamified experience got better scores in practical assignments and in overall score (Domínguez et al, 2013).



Why mobile?

Mobile has become the NO.1 device used by youths in China to browse internet. In 2013, 86.3% youths use mobiles to connect to the internet (CNNIC, 2014).

On the other hand, Shanghai Public Library already has launched a mobile app to provide information services to its patrons. This *Power Searcher* game could be added to the current version.

How does this game work?

The basic mechanism of this game is that players try to become the power searcher by completing different search tasks and unlocking myths. Tasks and myths start from the very simple one to more complicated and demanding ones, as players move to next levels. The key to an interesting and meaningful game is to have meaningful tasks and myths so that players could learn how to come up with the best search queries and strategies to solve problems, and enjoy the process of problem-solving.



Prototype

Suggested game mechanics to be included in *Power Searcher*

Progression

- A short tutorial in the beginning that helps starters to know how this game works.
- New clues will be unlocked through game play, and tasks will become more difficult as players level up.

Achievement

- In-game ranking & social ranking: besides conventional in-game ranking, players could also choose to share their gameplay data, and “compete” with friends.
- Rewarding system: rewards could be both virtual and real. Virtual rewards can include badges, or extra points; real world rewards could be an extension of book loan periods or a ticket to lectures/events held in the physical library, etc. In this way, youths could have more interactions with the physical library.

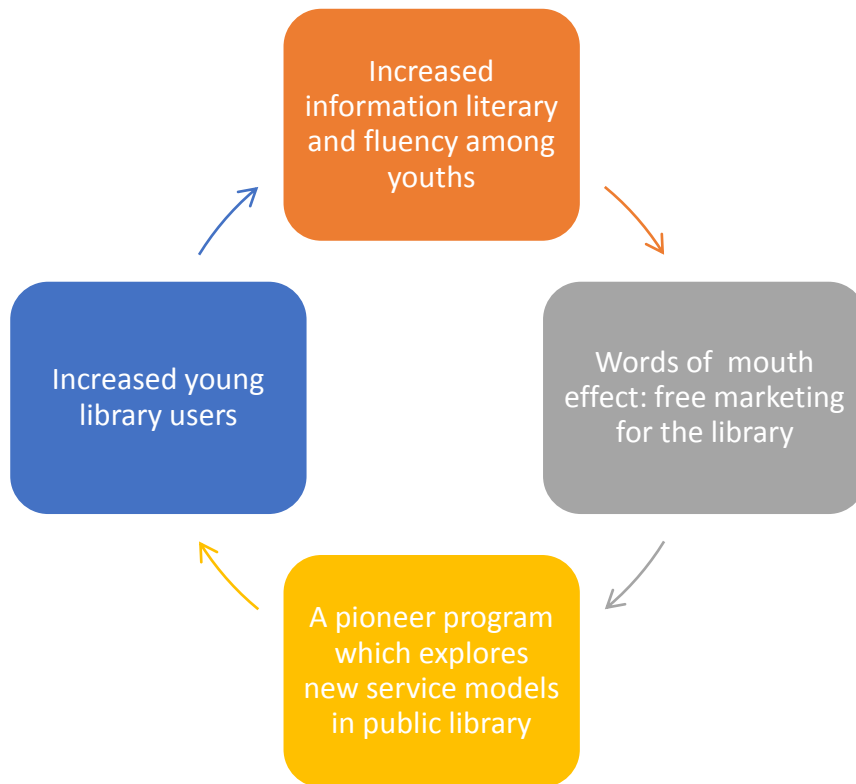
Collaboration & Socialization

- Team play: players could group together to solve complicated tasks.
- Sharing: the game should allow players to connect to their social media, and share their statuses or achievements with their friends who are not in this game, or they can also share their questions to ask for help. This could help to create the word of mouth effect, and as a result, engage more youths in this game and in the library.
- PvP (player versus player): under this PvP mode, two players or two groups of players would be given the same task, and compete with each other to see who could solve the problem faster and better.

Bonuses

- Special events: these are time-limited events that only happen once in a while, and could be combined with events held in the physical library, like lectures or new book promotions.

Expected Outcomes



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